INDEX TO VOLUME 33

ALTHERR, R., *see* HENJES-KUST, F. 1125

BARBIERI, M., *see* BECCALUVA 1371

BARNES, C. G., BARNES, M. A., *and* KISTLER, R. W. Petrology of the Caribou Mountain Pluton, Klamath Mountains, California 95

BARNES, M. A., *see* BARNES, C. G. 95

BECCALUVA, L., BARBIERI, M., BORN, H., BROTZU, P., COLTORTI, M., CONTE, A., GARBARINO, C., GOMES, C. B., MACCIOTTA, G., MORBIDELLI, L., RUBERTI, E., SIENA, F., *and* TRAVERSA, G. Fractional Crystallization and Liquid Immiscibility Processes in the Alkaline-Carbonatite Complex of Juquiá (São Paulo, Brazil) 1371

BÉGIN, N. J., *and* CARMICHAEL, D. M. Textural and Compositional Relationships of Ca-Amphiboles in Metabasites of the Cape Smith Belt, Northern Québec: Implications for a Miscibility Gap at Medium Pressure 1317

BELL, K., *see* ERNST, R. E. 423

BLUNDY, J. D., *and* SPARKES, R. S. J. Petrogenesis of Mafic Inclusions in Granitoids of the Adamello Massif, Italy 1039

BORN, H., *see* BECCALUVA, L. 1371

BOWEN, M. P., *see* MARSH, J. S. 817

BOWEN, T. B., *see* MARSH, J. S. 817

BROTZU, P., *see* BECCALUVA, L. 1371

BROWN, W. L., *see* OHNENSTETTER, D. 231

BUCHER-NURMINEN, K., *see* JAMTVEIT, B. 377

BUICK, I. S., *see* HARLEY, S. L. N. 693

CARMICHAEL, D. M., *see* BÉGIN, N. J. 1317

CHAI, G., *and* NALDRETT, A. J. The Jinchaun Ultramafic Intrusion: Cumulate of a High-Mg Basaltic Magma 277

CHALOKWU, C. I., *see* GRANT, N. K. 1007

CHARBONNEAU, H. E., *see* EDGAR, A. D. 505

CHEN, C.-H., PRESNALL, D. C., *and* STERN, R. J. Petrogenesis of Ultramafic Xenoliths from the 1800 Kaupulehu Flow, Hualalai Volcano, Hawaii 163

COLLERSON, K. D., *see* MACDONALD, R. 305

COLTORTI, M., *see* BECCALUVA, L. 1371

COLUCCI, M. T., *see* FERGUSON, K. M. 1

CONTE, A., *see* BECCALUVA, L. 1371

DAVIDSON, J. P., *see* FERGUSON, K. M. 1

DAY, R. A., GREEN, T. H., *and* SMITH, I. E. M. The Origin and Significance of Garnet Phenocrysts and Garnet-Bearing Xenoliths in Miocene Calc-alkaline Volcanics from Northland, New Zealand 125

DORAIS, M. J., *and* FLOSS, C. An Ion and Electron Microprobe Study of the Mineralogy of Enclaves and Host Syenites of the Red Hill Complex, New Hampshire, USA 1193

DUNGAN, M. A., *see* FERGUSON, K. M. 1

EDGAR, A. D., CHARBONNEAU, H. E., *and* MITCHELL, R. H. Phase Relations of an Armalcolite–Phlogopite Lamproite from Smoky Butte, Montana: Applications to Lamproite Genesis 505

EDWARDS, D., ROCK, N. M. S., TAYLOR, W. R., GRIFFIN, B. J., *and* RAMSAY, R. R. Mineralogy and Petrology of the Aries Diamondiferous Kimberlite Pipe, Central Kimberley Block, Western Australia 1157
ERNST, R. E., *and* BELL, K. Petrology of the Great Abitibi Dyke, Superior Province, Canada 423
ESSENE, E. J., *see* TUCCILLO, M. E. 1225
FERGUSON, K. M., DUNGAN, M. A., DAVIDSON, J. P., *and* COLUCCI, M. T. The Tatara–San Pedro Volcano 36°S, Chile: A Chemically Variable, Dominantly Mafic Magmatic System 1
FERRY, J. M. Regional Metamorphism of the Waits River Formation, Eastern Vermont: Delineation of a New Type of Giant Metamorphic Hydrothermal System 45
FLOSS, C., *see* DORAIS, M. J. 1193
FREY, F. A., *see* FURMAN, T. 1405
FURMAN, T., FREY, F. A., *and* MEYER, P. S. Petrogenesis of Evolved Basalts and Rhyolites at Austurhorn, Southeastern Iceland: The Role of Fractional Crystallization 1405
GARBARINO, C., *see* BECCALUVA, L. 1371
GARMANN, L. B., *see* MAALØE, S. 761
GERBE, M.-C., *see* HARMON, R. S. 585
GOMES, C. B., *see* BECCALUVA, L. 1371
GOSCOMBE, B. High-Grade Reworking of Central Australian Granulites: Metamorphic Evolution of the Arunta Complex 917
GRANT, N. K., *and* CHALOKWU, C. I. Petrology of the Partridge River Intrusion, Duluth Complex, Minnesota: II. Geochemistry and Strontium Isotope Systematics in Drill Core DDH-221 1007
GREEN, T. H., *see* DAY, R. A. 125
GRIFFIN, B. J., *see* EDWARDS, D. 1157
HARLEY, S. L., *and* BUICK, I. S. Wollastonite–Scapolite Assemblages as Indicators of Granulite Pressure–Temperature–Fluid Histories: The Rauer Group, East Antarctica 693
HARMON, R. S., *and* GERBE, M.-C. The 1982–83 Eruption at Calunggung Volcano, Java (Indonesia): Oxygen Isotope Geochemistry of a Chemically Zoned Magma Chamber 585
HARRISON, T. M., *see* KOHN, M. J. 521
HEARN, B. C. Jr., *see* MACDONALD, R. 305
HENJES-KUNST, F., *and* ALTHERR, R. Metamorphic Petrology of Xenoliths from Kenya and Northern Tanzania and Implications for Geotherms and Lithospheric Structures 1125
HICKMOTT, D., *and* SPEAR, F. S. Major- and Trace-Element Zoning in Garnets from Calcareous Pelites in the NW Shelburne Falls Quadrangle, Massachusetts: Garnet Growth Histories in Retrograded Rocks 965
HOLM, P. M., *see* JÓNASSON, K. 1345
HOLNESS, M. B. Metamorphism and Fluid Infiltration of the Calc-silicate Aureole of the Beinn an Dubhaich Granite, Skye 1261
JAMES, D., *see* MAALØE, S. 761
JAMES, D., *see* MACDONALD, R. 305
JAMES, S. D., *see* KOSTOPOULOS, D. K. 665
JAMTVEIT, B., BUCHER-NURMINEN, K., *and* STIJFHOORN, D. E. Contact Metamor-

phism of Layered Shale–Carbonate Sequences in the Oslo Rift: I. Buffering, Infiltration, and the Mechanisms of Mass Transport 377
JÓNASSON, K., HOLM, P. M., *and* PEDERSEN, A. K. Petrogenesis of Silicic Rocks from the Króksfjördur Central Volcano, NW Iceland 1345
KISTLER, R. W., *see* BARNES, C. G. 95
KOHN, M. J., ORANGE, D. L., SPEAR, F. S., RUMBLE, D., III, *and* HARRISON, T. M. Pressure Temperature and Structural Evolution of West–Central New Hampshire: Hot Thrusts over Cold Basement 521
KORNPROBST, J., *see* WOODLAND, A. B. 203
KOSTOPOULOS, D. K., *and* JAMES, S. D. Parameterization of the Melting Regime of the Shallow Upper Mantle and the Effects of Variable Lithospheric Stretching on Mantle Modal Stratification and Trace-Element Concentrations in Magmas 665
KYLE, P. R., MOORE, J. A., *and* THIRLWALL, M. F. Petrologic Evolution of Anorthoclase Phonolite Lavas at Mount Erebus, Ross Island, Antarctica 849
LABOTKA, T. C., *see* NABELEK, P. I. 557
LATIN, D., *see* NICHOLSON, H. 1105
MAALØE, S., JAMES, D., SMEDLEY, P., PETERSEN, S., *and* GARMANN, L. B. The Koloa Volcanic Suite of Kauai, Hawaii 761
McARTHUR, J. M., *see* WARD, C. D. 785
MACCIOTTA, G., *see* BECCALUVA, L. 1371
MACDONALD, R., UPTON, B. G. J., COLLERSON, K. D., HEARN, B. C. Jr., *and* JAMES, D. Potassic Mafic Lavas of the Bearpaw Mountains, Montana: Mineralogy, Chemistry and Origin 305
MARSH, J. S., BOWEN, M. P., ROGERS, N. W., *and* BOWEN, T. B. Petrogenesis of Late Archaean Flood-Type Basic Lavas from the Klipriviersberg Group, Ventersdorp Supergroup, South Africa 817
MEYER, P. S., *see* FURMAN, T. 1405
MEZGER, K., *see* TUCCILLO, M. E. 1225
MITCHELL, R. H., *see* EDGAR, A. D. 505
MOORE, J. A., *see* KYLE, P. R. 849
MORBIDELLI, L., *see* BECCALUVA, L. 1371
MYSEN, B. Peralkalinity, Al⇌Si Substitution, and Solubility Mechanisms of H_2O in Aluminosilicate Melts 347
NABELEK, P. I., LABOTKA, T. C., *and* RUSS-NABELEK, C. Stable Isotope Evidence for the Role of Diffusion, Infiltration, and Local Structure on Contact Metamorphism of Calc-Silicate Rocks at Notch Peak, Utah 557
NALDRETT, A. J., *see* CHAI, G. 227
NICHOLSON, H., *and* LATIN, D. Olivine Tholeiites from Krafla, Iceland: Evidence for Variations in Melt Fraction within a Plume 1105
NICOLAS, A. Kinematics in Magmatic Rocks with Special Reference to Gabbros 891
OHNENSTETTER, D., *and* BROWN, W. L. Overgrowth Textures, Disequilibrium Zoning, and Cooling History of a Glassy Four-Pyroxene Boninite Dyke from New Caledonia 231
OLSON, K. E. The Petrology and Geochemistry of Mafic Igneous Rocks in the Anorthosite-Bearing Adirondack Highlands, New York 471
ORANGE, D. L., *see* KOHN, M. J. 521
PECCERILLO, A., *and* WU, T. W. Evolution of Calc-alkaline Magmas in

Continental Arc Volcanoes: Evidence from Alicudi, Aeolian Arc (Southern Tyrrhenian Sea, Italy) 1295
PEDERSEN, A. K., *see* JÓNASSON, K. 1345
PETERSEN, S., *see* MAALØE, S. 761
PRESNALL, D. C., *see* CHEN, C.-H. 163
RAITH, M., *see* SPIKANTAPPA, C. 733
RAMSAY, R. R., *see* EDWARDS, D. 1157
ROCK, N. M. S., *see* EDWARDS, D. 1157
ROGERS, N. W., *see* MARSH, J. S. 817
RUBERTI, E., *see* BECCALUVA, L. 1371
RUMBLE, D., III, *see* KOHN, M. J. 521
RUSS-NABELEK., *see* NABELEK, P. I. 557
SCHREYER, W., *see* WUNDER, B. 877
SIENA, F., *see* BECCALUVA, L. 1371
SMEDLEY, P., *see* MAALØE, S. 761
SMITH, I. E. M., *see* DAY, R. A. 125
SPARKS, R. S. J., *see* BLUNDY, J. D. 1039
SPEAR, F. S., *see* HICKMOTT, D. 965
SPEAR, F. S., *see* KOHN, M. J. 521
SPIKANTAPPA, C., RAITH, M., *and* TOURET, J. L. R. Synmetamorphic High-Density Carbonic Fluids in the Lower Crust: Evidence from the Nilgiri Granulites, Southern India 733
STERN, R. J., *see* CHEN, C.-H. 163
STIJFHOORN, D. E., *see* JAMTVEIT, B. 377
TAYLOR, W. R., *see* EDWARDS, D. 1157
THIRLWALL, M. F., *see* KYLE, P. R. 849
TOURET, J. L. R., *see* SPIKANTAPPA, C. 733
TRAVERSA, G., *see* BECCALUVA, L. 1371
TUCCILLO, M. E., MEZGER, K., ESSENE, E. J., *and* VAN DER PLUIJM, B. A. Thermobarometry, Geochronology and the Interpretation of *P–T–t* Data in the Britt Domain, Ontario Grenville Orogen, Canada 1225
UPTON, B. G. J., *see* MACDONALD, R. 305
VAN DER PLUIJM, B. A., *see* TUCCILLO, M. E. 1225
WALSH, J. N., *see* WARD, C. D. 785
WARD, C. D., McARTHUR, J. M., *and* WALSH, J. N. Rare Earth Element Behaviour During Evolution and Alteration of the Dartmoor Granite, SW England 785
WILSON, A. H. The Geology of the Great Dyke, Zimbabwe: Crystallization, Layering, and Cumulate Formation in the P1 Pyroxenite of Cyclic Unit 1 of the Darwendale Subchamber 611
WOOD, B. J., *see* WOODLAND, A. B. 203
WOODLAND, A. B., KORNPROBST, J., *and* WOOD, B. J. Oxygen Thermobarometry of Orogenic Lherzolite Massifs 203
WU, T. W., *see* PECCERILLO, A. 1295
WUNDER, B., *and* SCHREYER, W. Metastability of the 10-Å Phase in the System $MgO–SiO_2–H_2O$ (MSH). What about Hydrous MSH Phases in Subduction Zones? 877